

**Craighead Environmental Research Institute**  
**Monthly Progress Report: July, 2008**  
for the Montana Department of Transportation and Western  
Transportation Institute

Bozeman Pass Wildlife Monitoring  
MSU banner number 426899

**1 July 2008 – 30 July 2008**

**Task 1: Road Kill Surveys during July 2008**

Road kill surveys were conducted between Bozeman and Jackson Creek. Surveys were conducted on both sides of I-90 from Bozeman to Jackson Creek and back for a total of 22 miles round trip and an estimated 1 hour of labor per survey. Thirteen (13) road-kill surveys were driven during July of 2008. One (1) of those recorded no new road-kill. This equals 286 miles driven in July for this subcontract. Totals of animals killed between Bozeman and Livingston were:

Bozeman Pass Roadkill Totals	July
Species	Number
Badger	1
Beaver	0
Bobcat	0
Bird Spp.	1
Black Bear	0
Cowbird	0
Coyote	2
Crow	1
Deer species	5
Dog	0
Domestic cat	4
Elk	0
Great Horned Owl	0
Ground Squirrel	1
Harrier	0
Hungarian (Gray) Partridge	0
Long-eared Owl	0
Magpie	2
Mallard	1

Marmot	1
Meadowlark	0
Mink	0
Moose	0
Mule Deer	0
Pigeon	0
Porcupine	0
Rabbit	3
Raccoon	6
Red Fox	1
Ruffed Grouse	0
Snowshoe Hare	0
Skunk	4
Small mammal spp.	2
Weasel	0
White Tail Deer	2

### **Task 2: Track bed monitoring at the MRL Bridge in July 2008**

One track bed session was begun in June which continued on into July. One other track bed session was completed in July and a third was begun on July 30 and completed in August. The majority of large animal tracks were deer. Runoff from rain in June washed out an area in the center of the track bed. This area was improved with a drainage pipe in July that has prevented erosion of the track bed during two large rain/hail storms.

### **Task 3: Photo monitoring at fence ends through July 2008**

Cameras were downloaded in early July. Batteries for these fence-end remote cameras were operational. Animal occurrences photographed at the fence ends in May, June, and early July were: 6 birds, 3 deer, 4 coyotes, and 1 marmot. One deer travelled from inside the fence out along the guardrail at the SE fence end. One coyote crossed the highway from the north end to the south end where he was inside the fence before exiting along the guardrail at the SE fence end.

At the west fence end the camera is mounted under the bridge over Bear Canyon road. This camera operated until sometime after mid-March when the batteries went dead. Animal occurrences photographed were: 2 birds, 1 deer, 3 cats, and 2 dogs travelling under the Interstate along the embankment beneath the bridge.

### **Task 4: Infrared counter monitoring at jump-outs through July 2008**

We removed the Trailmaster motion sensors during the middle part of June. CERI will deploy new RECONYX cameras in August.

**Task 5: Track bed monitoring at fence ends, jump-outs through July 2008**

We began to monitor the fence ends and jump-outs during May. This continued through July with no records of animals exiting through the jump-outs.

**Task 6: Photo monitoring of culverts July 2008**

Due to the high run-off in Rocky Creek only one culvert camera was downloaded in July. High water in the second culvert precluded downloading until August. The camera in the east culvert took photos in October, November, and December 2007 before the batteries went dead sometime during the winter. Animal occurrences photographed in the east culvert were: 4 raccoons.

**Task 7: Opportunistic snow tracking at track bed, fence ends, jump-outs, and along the Interstate in July 2008.**

We are no longer conducting snow tracking at the track bed, fence ends and jump-outs until winter.

**Task 8: Data Management & Reporting in July 2008**

Data entry and summary required two hours during July.

**Discussion:**

Data and observations from May indicate that the fencing is not 100% effective at keeping animals off the road surface in the study area. At least one whitetailed deer was killed inside the fence in May. One large adult raccoon was killed within the fence in July. The fence ends could be made more of a barrier to wildlife entry by placing large cobble rocks at the ends between the wildlife fence and the guardrail. This would prevent deer and other animals from entering the fenced area along the highway median behind the guardrail. An electrified rubber strip could also be placed across the highway surface between the fence ends to prevent animals from walking down the highway surface into the fenced area. Rubberized electrical mats have proven effective in Canada.

An invoice was submitted with this report for July expenses and activities. Currently the cumulative total billed to this project is \$22,554.92.